SAFETY DATA SHEET

1. Identification of the dangerous substance/preparation and the identity of the manufacturer, importer, agent or marketer

Product name **Eastern Mediterranean Natural Gas**

Manufacturer: NOBLE ENERGY MEDITERRANEAN, Ltd.
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12 ABBA EBEN BOULEVARD
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HERZELIA PITUACH, 4672530
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General Information: 972-73-2424-260
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Access code 333053

2. Identification of the components of the substance/preparation

Substance or Preparation Substance

Chemical name	Synonyms	CAS number	Percent
Methane		74-82-8	> 99

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
Note: Natural gas can contain minor amounts of sulfur, nitrogen and oxygen containing organic compounds as well as trace amounts of heavy metals like mercury, arsenic, nickel, and vanadium. Composition can vary depending on the source and formation.

3. Dangers of the dangerous substance/preparation

Classification F+;R12

Physical hazards Extremely flammable.

Health hazards Not classified as a health hazard.

Environmental hazards Not classified as an environmental hazard.

Specific hazards Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of co-ordination. Continued inhalation may result in unconsciousness. Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.

Main symptoms Narcosis. Behavioural changes. Decrease in motor functions. Contact with evaporating liquid may cause frostbite or freezing of skin.

4. First aid instructions

First aid measures for different exposure routes

Inhalation Move injured person into fresh air and keep person calm under observation. If breathing is difficult, give oxygen. Get medical attention if any discomfort continues.

Skin contact Frostbite: Do not remove clothes, but flush with copious amounts of lukewarm water. Call an ambulance and continue to flush during transportation to hospital.

Eye contact If frostbite occurs, immediately flush eyes with plenty of warm water (not exceeding 105°F/41°C) for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops or persists.

Ingestion This material is a gas under normal atmospheric conditions and ingestion is unlikely.

Main symptoms Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite ("cold burn"). Narcosis. Behavioural changes. Decrease in motor functions.

Personal protection for first-aid responders Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Notes to physician Treat symptomatically.

Special first aid equipment None known.

5. Firefighting procedure

Extinguishing media

Suitable extinguishing media	Foam. Dry chemical powder. Carbon dioxide (CO2). Water fog.
Extinguishing media which must not be used for safety reasons	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards during fire fighting	Containers may explode when heated. Thermal decomposition or combustion may liberate toxic gases or fumes.
Special fire fighting procedures	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
Protection of fire-fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
General fire hazards	Extremely flammable gas.
Specific methods	Move container from fire area if it can be done without risk. Use water spray to keep fire-exposed containers cool.

6. Safety precautions

Personal precautions	Eliminate sources of ignition. Wear appropriate personal protective equipment (See Section 8).
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
Methods for cleaning up	Eliminate sources of ignition. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Large Spills: Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

7. Handling and storage

Handling

Technical measures	The product is extremely flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures.
Local and general ventilation	Ensure adequate ventilation, especially in confined areas.
Safe handling advice	Avoid breathing gas. Contact with liquefied gas might cause frostbites, in some cases with tissue damage. Wash thoroughly after handling. Use only with adequate ventilation.

Storage

Appropriate and safe storage conditions	Flammable liquid storage.
Suitable storage conditions	Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Special recommendations	Keep away from heat and sources of ignition.
Safe packaging materials	No specific recommendations. Contents under pressure. Do not puncture.

8. Means of reducing exposure and personal protection

Engineering measures	Ensure adequate ventilation, especially in confined areas. Provide easy access to water supply and eye wash facilities.
Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).

Personal protective equipment

Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type:
Hand protection	Chemical resistant gloves are recommended.
Eye protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Colorless gas.
Physical state	Gas.
Form	Gas.
Colour	Colourless.
Odour	Odourless.
Odour threshold	Not relevant.
pH	Not relevant.
Melting point/freezing point	-182.47 °C (-296.45 °F)
Initial boiling point and boiling range	-107.5 °C (-161.5 °F)
Decomposition temperature	Not relevant.
Flash point	-88.6 °C (-127.5 °F) Pensky-Martens Closed Cup
Flammability	Flammable gas.
Auto-ignition temperature	287 °C (548.6 °F)
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	5
Flammability limit - upper (%)	15
Oxidizing properties	Not applicable.
Vapour pressure	Not relevant.
Density	Gas Density at boiling point 1.816 kg/m3
Solubility(ies)	
Solubility (water)	22.7 mg/l
Partition coefficient (n-octanol/water)	1.1
Other information	
Evaporation rate	Not relevant.
Explosive properties	May form explosive mixtures with air.
Relative density	0.42 @ 77°F (25°C)
Vapour density	0.68 @ 59°F (15°C) (air=1)
Viscosity	0.01 mPa·s
Viscosity temperature	27 °C (80.6 °F)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Keep away from heat, sparks, and flame.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Incompatibility	Strong oxidising agents.
Hazardous decomposition products	No hazardous decomposition products are known.
Materials to avoid	The product is stable and non-reactive under normal conditions of use, storage and transport.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea.
Skin contact	Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.
Eye contact	Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.

Ingestion	This material is a gas under normal atmospheric conditions and ingestion is unlikely.
Toxicological data	Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.
Acute toxicity	Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite ("cold burn").

Components	**Species**	**Test results**
Methane (CAS 74-82-8)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes
		52 %, 120 Minutes
	Rat	1355 mg/l

Skin corrosion/irritation	Not classified.
Serious eye damage/eye irritation	Not classified.
Respiratory or skin sensitisation	
Respiratory sensitisation	Not a respiratory sensitiser.
Skin sensitisation	Not a skin sensitiser.
Germ cell mutagenicity	Not classified.
Carcinogenicity	This product is not considered to be a carcinogen by NTP, IARC, or OSHA.
Reproductive toxicity	Not classified.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not applicable.
Chronic effects	None known.

12. Environmental information

Ecotoxicity

Environmental effects	Not expected to be harmful to aquatic organisms.
Persistence and degradability	
Mobility in soil	
Mobility in general	The gas will disperse in the air.
Other information	Not applicable.

13. Dangerous substance disposal methods

Disposal instructions	Do not discharge into drains, water courses or onto the ground. Discharge, treatment, or disposal may be subject to national, state, or local laws.
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers retain product residue, follow label warnings even after container is emptied.
Special precautions	Dispose of in accordance with local regulations.

14. Transport information

International regulations

IATA

UN number	UN1971
UN proper shipping name	Methane, compressed
Transport hazard class(es)	
Class	2.1
Subsidiary risk	6.1
Label(s)	2.1
Packing group	Not applicable.

Environmental hazards	No.
Special precautions for user	Not available.

IMDG

UN number	UN1971
UN proper shipping name	Methane, compressed
Transport hazard class(es)	
Class	2.1
Subsidiary risk	6.1
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Not available.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available.

15. Regulatory information

Israel regulations

Israel. Harmful Chemicals (Hazardous Substances Law, 5753-1993, Annex 1, as amended)

Not listed.

Israel. Toxic Chemicals (Hazardous Substances Law, 5753-1993, Annex 2, as amended)

Not listed.

Labelling

Contains	Methane

Symbol(s)

Extremely flammable

R-phrase(s)	R12 Extremely flammable.
S-phrase(s)	S3/7 Keep container tightly closed in a cool place. S9 Keep container in a well-ventilated place. S16 Keep away from sources of ignition - No smoking. S23 Do not breathe gas/fumes/vapour/spray.

16. Other information

Training information	Follow training instructions when handling this material.
Recommended use	Fuel
Recommended restrictions	Use in accordance with supplier's recommendations.
Further information	Not applicable.
Bibliography	ECHA registered substances database HSDB® - Hazardous Substances Data Bank IARC Monographs. Overall Evaluation of Carcinogenicity National Toxicology Program (NTP) Report on Carcinogens Registry of Toxic Effects of Chemical Substances (RTECS)

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